# SOIL REMOVAL REPORT

## S&W WASTE, INC.
## 101-105 JACOBUS AVE.
## KEARNY, HUDSON COUNTY, NEW JERSEY

**Submitted to:**

NEW JERSY DEPARTMENT OF ENVIRONMENTAL PROTECTION

**Prepared by:**

SADAT ASSOCIATES, INC.
Princeton, New Jersey

April 1997

## 1.0 Introduction

This Soil Removal Report has been prepared by Sadat Associates, Inc. (SAI) on behalf of S&W Waste, Inc. (S&W), for the property located at 101-105 Jacobus Avenue, in S. Kearny, New Jersey.

Under the provisions of an Administrative Consent Order entered into by S&W and the New Jersey Department of Environmental Protection (NJDEP) in 1991, S&W submitted a Remedial Investigation (RI) Report dated December 1994. The RI Report recommended that a low permeability cap be installed over the eastern portion of the property after limited "hot spot" soil excavation, and that groundwater monitoring be performed for a two year period. The RI Report was approved by the NJDEP in July 1996.

The purpose of this Report is to describe the voluntary limited excavation, removal and disposal of lead-contaminated soils from two areas of the site.

## 2.0 Findings

### 2.1 General

The hot spot soil removal was focused in the vicinity of soil borings SB-4 and SB-5 (see Figures 2, 3 and 4 located within Appendix A of the RAA/RAW Report for sample locations). These two original soil borings advanced as part of the RI indicated the highest levels of lead contamination in the soil at the site. Since the installation of a low permeable cap was included as part of the remedial action recommendation in the approved RI, the objective of the soil excavation was to remove as much of the most heavily contaminated soil from the property, prior to capping. The intent was not to achieve the soil cleanup criterion for lead in these locations, nor to be protective of human health and the environment, but to cost-effectively remove as much of the heavily contaminated soil as practicable.

eliminate

## 2.2 Soil Remediation near Soil Boring SB-4

Five delineation soil samples, labeled SB4-1 through SB4-5, were collected within approximately 15 - 45 feet of the original boring east of Pad C and analyzed for lead. Each sample was collected from the top 12" of soil using a clean shovel, placed on an aluminum sheet and mixed prior to placement into a half gallon glass jar. The samples were analyzed by Quantex, a New Jersey certified laboratory (#12766). The results are listed in Table 1. Based upon the results, which show very high levels of lead contaminated in samples SB4-2 and SB4-3, further delineation samples were collected. Samples SB4-6 through SB4-8 were collected in a pattern surrounding the identified heavily contaminated area, while SB4-2B was collected from the 1 - 2' depth underneath the location of sample SB4-2. The analytical results of these samples are also listed on Table 1.

Based upon the delineation sampling, S&W excavated the top 12" of soil encompassing SB4-2, SB4-3, and SB4-8, which represented the most highly contaminated soil. The soil was placed into a container prior to treatment by the S&W facility (see Section 2.4).

After the soil excavation, a total of five post-excavation soil samples were collected and analyzed by S&W's own New Jersey certified laboratory (#09397). The results of the analyses of these samples, labeled SB1C through SB5C, are also listed on Table 1. The sample results clearly indicate the removal of the lead contamination in this area of concern.

## 2.3 Soil Remediation Near Soil Boring SB-5

Three delineation soil samples, labeled SB5x1 through SB5x3, were collected within approximately 15 - 45 feet of the original boring south of the water bladder and analyzed for lead. Each sample was collected from the top 12" of soil using a clean shovel, placed on an aluminum sheet and mixed prior to placement into a half gallon glass jar. The samples were analyzed by Quantex. The results are listed in Table 1. Soil within a trench of dimensions 4' wide by 20' long by 1' deep was excavated and placed into a container prior to treatment by the S&W facility (see Section 2.4). One post-excavation sample was collected and analyzed for lead

(SB6C) by S&W's certified laboratory. The results are listed in Table 1. S&W excavated an additional 6" of soil from within the trench and collected a second post-excavation sample (SB5-X4, see Table 1). After the excavation of additional soil, a final post-excavation sample (SB5-X4A) was collected, the results of which are also listed on Table 1. No further remediation was conducted.

## 2.4 Soil Disposal

The soil excavated from the vicinity of the Pad C (SB-4) and the water bladder (SB-5) areas was placed in containers. Concurrent with the soil remediation activities, S&W was constructing a concrete pad for the loading/unloading area to the tank farm, just north of Pad C. As part of the construction, S&W graded the ground to conform with the elevations required by the pad design. The soil removed during the grading operation was also placed into storage containers. Based on S&W's experience with this type of waste material, S&W anticipated the presence of a hazardous characteristic (TCLP for lead >5 ppm). Therefore, the soil within the containers was treated via stabilization through the addition of cement kiln dust. After treatment, tests indicated that the soil did not exhibit the toxicity characteristic for lead and therefore could be considered non-hazardous (see Table 2 for TCLP results). As such, the material was disposed at GROWS Landfill in Morrisville, PA and the BFI Ottawa City Landfill in Ohio. The total amount of soil removed during the excavation of the three areas was 231 tons.

HOT SPOT LEAD-CONTAMINATED SOIL REMOVAL
S&W WASTE
TABLE 1 - DELINEATION AND POST-EXCAVATION SAMPLE RESULTS

SB4

| SAMPLE ID | SAMPLE DEPTH | DATE SAMPLED | SAMPLE TYPE | LEAD CONCENTRATIO | LAB NAME |
|---|---|---|---|---|---|
| SB4-1 | 0 - 12" | 11/27/96 | DELINEATION | 728 | QUANTEX |
| SB4-2 | 0 - 12" | 11/27/96 | DELINEATION | 74,139 | QUANTEX |
| SB4-2B | 12" - 24" | 12/6/96 | DELINEATION | 2,287 | QUANTEX |
| SB4-3 | 0 - 12" | 11/27/96 | DELINEATION | 19,322 | QUANTEX |
| SB4-4 | 0 - 12" | 11/27/96 | DELINEATION | 703 | QUANTEX |
| SB4-5 | 0 - 12" | 11/27/96 | DELINEATION | 136 | QUANTEX |
| SB4-6 | 0 - 12" | 12/6/96 | DELINEATION | 1,447 | QUANTEX |
| SB4-7 | 0 - 12" | 12/6/96 | DELINEATION | 2,069 | QUANTEX |
| SB4-8 | 0 - 12" | 12/6/96 | DELINEATION | 3,109 | QUANTEX |
| SB1C | 12" - 24" | 12/23/96 | POST-EXCAVATION | 6.58 | S&W |
| SB2C | 12" - 24" | 12/23/96 | POST-EXCAVATION | 12 | S&W |
| SB3C | 12" - 24" | 12/23/96 | POST-EXCAVATION | 135 | S&W |
| SB4C | 12" - 24" | 12/23/96 | POST-EXCAVATION | 29.8 | S&W |
| SB5C | 12" - 24" | 12/23/96 | POST-EXCAVATION | 18.9 | S&W |

SB5

| SAMPLE ID | SAMPLE DEPTH | DATE SAMPLED | SAMPLE TYPE | LEAD CONCENTRATIO | LAB NAME |
|---|---|---|---|---|---|
| SB5x1 | 0 - 12" | 11/27/96 | DELINEATION | 1,299 | QUANTEX |
| SB5x2 | 0 - 12" | 11/27/96 | DELINEATION | 138 | QUANTEX |
| SB5x3 | 0 - 12" | 11/27/96 | DELINEATION | 119 | QUANTEX |
| SB6C | 12" - 18" | 12/24/96 | POST-EXCAVATION | 1,417 | S&W |
| SB5-X4 | 18" - 24" | 1/7/97 | POST-EXCAVATION | 6,027 | S&W |
| SB5-X4A | 24" - 30" | 1/7/97 | POST-EXCAVATION | 2,220 | S&W |

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ALL RESULTS IN PPM

HOT SPOT LEAD-CONTAMINATED SOIL REMOVAL
S&W WASTE
TABLE 2 - POST-TREATMENT TCLP RESULTS

| SAMPLE ID# | DATE SAMPLED | LEAD TCLP RESULT |
|---|---|---|
| PIT #1 | 11/21/96 | <0.10 |
| PIT #3 | 12/3/96 | 0.35 |
| PIT #1 | 12/30/96 | <0.10 |
| PIT #4 | 1/2/97 | 3.72 |
| PIT #3 | 1/15/97 | 2.4 |

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ALL RESULTS IN PPM
ALL ANALYSES PERFORMED BY S&W'S OWN CERTIFIED LABORATORY
HAZARDOUS WASTE LIMITATION FOR TCLP FOR LEAD IS 5 PPM

S&W WASTE, INC.
SOIL REMOVAL COSTS
NOVEMBER 1996 - JANUARY 1997

| # of Shipments | Bill of Lading # | Pounds | Trans Cost | Disposal Cost |
|---|---|---|---|---|
| 1 | B/L 26686 | 47,360 | $296.75 | $724.07 |
| 2 | B/L 26748 | 46,740 | $296.75 | $722.85 |
| 3 | B/L 26687 | 44,500 | $276.13 | $673.75 |
| 4 | B/L 26728 | 46,540 | $290.63 | $709.13 |
| 5 | B/L 26729 | 44,560 | $278.38 | $679.24 |
| 6 | B/L 26730 | 47,180 | $294.00 | $717.36 |
| 7 | B/L 26731 | 46,060 | $287.63 | $701.81 |
| 8 | B/L 26732 | 44,600 | $279.25 | $681.37 |
| 9 | B/L 040084 | 46,380 | | $1,027.35 * |
| 10 | B/L 26733 | 44,620 | $275.88 | $673.14 |
| 11 | B/L 26734 | 45,540 | $284.88 | $695.10 |
| 12 | B/L 26735 | 45,640 | $281.00 | $685.64 |
| hotspot.wq1 | | 549,720 | $3,141.28 | $8,690.81 |

* Cost includes Transportation and Disposal

OFFICE OF THE

# REGISTER

HUDSON COUNTY ADMINISTRATION BUILDING

JERSEY CITY, N.J. 07306

| | NO. | FEE |
|---|---|---|
| DEEDS | 00,076 | $ 58.00 |
| MORTGAGES | | $ |
| FINANCIAL STATEMENT | | $ |
| ASSIGNMENTS | | $ |
| SATISFACTIONS | | $ |
| RELEASES | | $ |
| CANCELLATIONS | | $ |
| LIS PENDENS | | $ |
| MISCELLANEOUS | | $ |

NAMES OF PARTIES:

98 FEB -4 PM 1:22

001076

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Barbara A. Arnwine
HUDSON COUNTY

# DECLARATION OF ENVIRONMENTAL RESTRICTIONS

Prepared by:

Kenneth Goldstein P.G.
(Signature)

Kenneth Goldstein

This Declaration of Environmental Restrictions, made as of the 8th day of January, 1998, by Melon Leasing Corporation, Inc., for 101-105 Jacobus Avenue, Kearny, New Jersey (together with its successors and assigns, collectively "Owner").

W I T N E S S E T H :

WHEREAS, Owner is the owner in fee simple of certain real property (the "Property") designated as Lots 14 and 14A, Block 289, on the tax map of the City of Kearny, Hudson County, more particularly described on Exhibit A attached hereto and made a part hereof; and

WHEREAS, the New Jersey Department of Environmental Protection ("Department") has issued a remedial approval on June 9, 1997 concerning the Property in which the Department has approved the use of non-residential soil standards, institutional controls, and/or engineering controls in accordance with P.L. 1993 c. 139 (S-1070), and

WHEREAS, this Declaration itself is not intended to create any interest in real estate in favor of the Department, nor to create a lien or encumbrance against the Property, but merely is intended to reflect the regulatory and statutory obligations imposed as a condition of using non residential standards; and

WHEREAS, the areas described on Exhibit B attached hereto and made a part hereof (the "Affected Areas") contain contaminants;

WHEREAS, the type, concentration and specific location of the contaminants are described on one or more diagrams, maps and/or tables on Exhibit B attached hereto and made a part hereof; and

WHEREAS, to prevent the potential for migration of the contaminants and unacceptable risk of exposure to the contamination to humans or the environment, a 10 inch surface cover including a low permeability layer of asphalt approximately three inches in thickness is in place the Property, at the location shown on Exhibit B;